



Ile aux Aigrettes' paths, deserted by its usual visitors since March 19th, 2020. Nature is being given a moment of respite, with only a few Conservation Biologists presently there.



ECHO NEWS

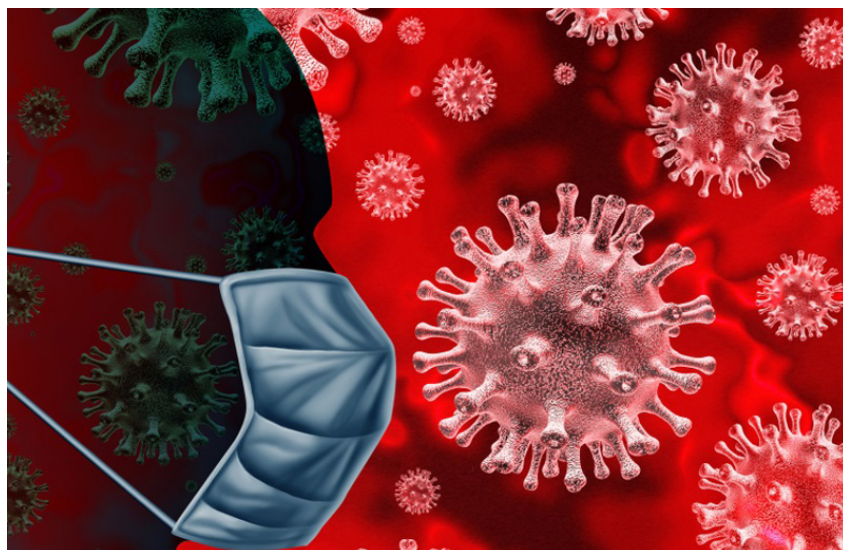
No.5

CONSERVATION & COVID-19

In less than 5 months, over 2,500,000 cases of COVID-19 have been reported all over the world, including over 171,000 deaths. Mauritius is no exception with over 300 reported cases and 9 deaths since April 19th.

It is a global challenge and most countries are taking exceptional measures in view of containing the spread of the virus. Mauritius is in a total lockdown situation since March 20th, as the COVID-19 pandemic is impacting on the country, reducing activities to minimum. It is a challenge that the Mauritian Wildlife Foundation has to respond to effectively, while making sure that staff remain safe and well.

The disruptions caused by the virus are harmful not only to people and their wellbeing, but also to the crucial conservation work that we do. We have organised to continue our work under the lockdown situation with our usual enthusiasm and commitment. Some of our staff are confined on Ile aux Aigrettes, where they can still feed



the birds, tortoises, juvenile Telfair skinks and bats, and care for plants in the nursery, whilst we are getting organized to continue to operate in our various field stations including Round Island. The head office is closed but where possible, we are supporting our staff to work from home as much as they can, using online co-working technologies. We are also holding regular online meetings to keep up

to date with the rapidly changing situation, so that we can advise and assist our workforce as quickly as possible. Our Ecotours have stopped all operations since Friday 20th of March.

KEY GLOBAL MEETINGS FOR NATURE DELAYED?

BirdLife International CEO, Patricia Zurita also confirmed that the wider

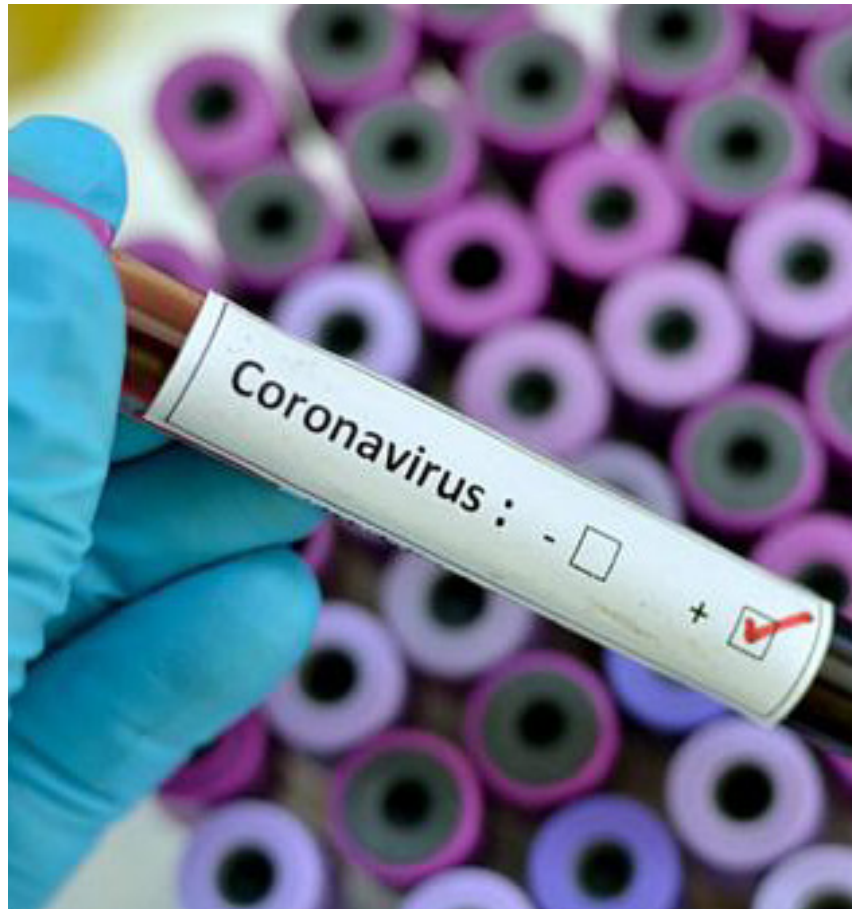
conservation world is also feeling the impact of this unprecedented crisis. 2020 was meant to be the 'super year for nature': over the coming months, the world's governments were scheduled to meet through the UN Convention on Biological Diversity (CBD), to thrash out the targets countries need to meet to tackle the biodiversity crisis. Two rounds of negotiation were planned for May and July before the final Biodiversity Summit this October in Kunming, China. However, the CBD recently announced that they have postponed meetings over the coming months, with others moving online. All of which is likely to delay the summit, along with the global plan for nature that could save the planet, an opportunity to raise public awareness and campaigning delayed, she said.

WILDLIFE AND VIRUSES

Understandably, Coronavirus is at the forefront of most people's minds, whilst conservation, environment and saving biodiversity relegated to nowhere. However, many including World Economic Forum believe that disease outbreaks including the Zika virus, are linked to deforestation, because cutting trees and forests drives animals out of their natural habitats, making them more likely to come into contact with humans and pass on diseases unknown to man. Ebola which first broke out in Congo (Zaire) in 1976 is thought to have originated in gorillas and monkeys. SARS which broke out in Guangdong, China in 2003 is thought to have originated in bats and transmitted to humans via civet cats.

Strong evidence show that the Covid-19 virus originated in a seafood market selling live animals in Wuhan, China. Snakes, Pangolins and Bats are pinpointed, with no clear evidence about who is the real culprit.

For conservationists, it is a wake-up call. More than ever people need to respect nature and more effectively tackle the on-going illegal wildlife trade. In this way, by protecting nature, we protect ourselves from



those viruses.

ENCOURAGING MOVES & HOPES

According to BirdLife International it is however encouraging to see that some governments have already taken action to stop the spread of disease by protecting nature. For example, in February China introduced tough new measures to address the concern that the virus had its origin in wild animals. These include a moratorium on all wildlife trade, and an unprecedented ban on the consumption of wild animals as food. Whilst the exact pathway of the coronavirus from animals to humans is not yet proven, this move will certainly protect humans from other harmful diseases, as well as being a blessing for wildlife. As part of Restore Species – a partnership that aims to end the illegal and unsustainable trade of wild animals – we welcome this decision and hope it will become permanent. BirdLife has long worked hard to address the illegal trapping and trade in wildlife, and this crisis is a strong

reminder about how important this agenda is.

The hope also lies in the millions of people, confined to their homes and who now have time to think about nature. The imposed confinement is also allowing our planet to breathe, with less air, land and sea traffic, less human activity, factories shut down and overall less pollution. A bad for a good, you could say.

We will stay connected and share news and information so that people indoors remain connected to the natural world. Simultaneously, we will maintain our activity, despite the logistical challenges the lockdown and remote working can bring.

Through this crisis, the Mauritian Wildlife wants to be able to continue to play its role and protect those species that need human support to survive. Please stay tuned and above all, consider joining forces to protect nature.

TALKING ABOUT COVID-19 SINCE JANUARY

Le Dossier Radio One du mercredi 29 janvier 2020 – Corona Virus



L'émission 'Le Dossier de Radio One', présenté par Ashley Victor, a accueilli mercredi 29 janvier, le Docteur Deoraj Caussy, Virologue et Epidémiologiste et le Dr Vikash Tatayah, Conservation Director à la Mauritian Wildlife Foundation. Le dossier de la soirée été focalisé sur le Corona Virus – Que savons nous de ce virus (qui semble être la préoccupation de tous)? Le virus est passé de l'animal à l'homme et maintenant transmissible d'homme à homme.

Pendant cette émission, Vikash Tatayah a déclaré, « La population s'inquiète beaucoup et se pose la question ; est-ce que les chauves-

souris de Maurice sont porteur du même virus ? Pour commencer, les chauve-souris qui se trouvent en Chine ne sont pas les mêmes espèces qui se trouvent à Maurice. Il y a trois types de chauve-souris qui se trouvent à Maurice actuellement ; la chauve-souris frugivore et les deux autres sont insectivores. Jusqu'à présent, il n'y a pas eu de cas d'isolement de COVID-19 lié à la chauve-souris de Maurice. Donc, les chances qu'on acquis le virus de nos chauve-souris sont très limitées.

Cliquez sur le lien ci-dessous pour écouter l'intégralité de l'émission: <https://bit.ly/2wPg2r9>

BATS ARE NOT TO BLAME FOR CORONAVIRUS. HUMANS ARE!

By Nick Paton Walsh and Vasco Cotovio, CNN

March 20, 2020

(CNN) Reclusive, nocturnal, numerous -- bats are a possible source of the coronavirus. Yet some scientists concur they are not to blame for the transfer of the disease that's changing daily life -- humans are.

Zoologists and disease experts have told CNN that changes to human behavior -- the destruction of natural habitats, coupled with the huge number of fast-moving people now on Earth -- has enabled diseases that were once locked away in nature to cross into people fast. Scientists are still unsure where the virus originated, and will only be able to prove its source if they isolate a live virus in a suspected species -- a hard task.

But viruses that are extremely similar to the one that causes Covid-19 have been seen in Chinese horseshoe bats.



That has led to urgent questions as to how the disease moved from bat communities -- often untouched by humans -- to spread across Earth.

The answers suggest the need for a complete rethink of how we treat the planet. Bats are a possible source of the coronavirus, but some scientists



say humans are to blame for the spread of the disease.

Bats are the only mammal that can fly, allowing them to spread in large numbers from one community over a wide area, scientists say. This means they can harbor a large number of pathogens, or diseases. Flying also requires a tremendous amount of activity for bats, which has caused their immune systems to become very specialized.

"When they fly they have a peak body temperature that mimics a fever," said Andrew Cunningham, Professor of Wildlife Epidemiology at the Zoological Society of London. *"It happens at least twice a day with bats -- when they fly out to feed and then they return to roost. And so the pathogens that have evolved in bats have evolved to withstand these peaks of body temperature."*

Cunningham said this poses a potential problem when these diseases cross into another species. In humans, for example, a fever is a defense mechanism designed to raise the body temperature to kill a virus. A virus that has evolved in a bat will probably not be affected by a higher body temperature, he warned.

But why does the disease transfer in the first place? That answer seems simpler, says Cunningham, and it

involves an alien phrase that we will have to get used to, as it is one that has changed our lives -- "zoonotic spillover" or transfer.

"The underlying causes of zoonotic spillover from bats or from other wild species have almost always -- always -- been shown to be human behavior," said Cunningham. *"Human activities are causing this."*

When a bat is stressed -- by being hunted, or having its habitat damaged by deforestation -- its immune system is challenged and finds it harder to cope with pathogens it otherwise took in its stride.

"We believe that the impact of stress on bats would be very much as it would be on people," said Cunningham. *"It would allow infections to increase and to be excreted -- to be shed. You can think of it like if people are stressed and have the cold sore virus, they will get a cold sore. That is the virus being 'expressed.' This can happen in bats too."*

Pathogens that have evolved in bats can withstand a high body temperature, so a human fever will not work as a defense mechanism.

In the likely epicenter of the virus -- the so-called wet-markets of Wuhan, China -- where wild animals are held captive together and sold as delicacies

or pets, a terrifying mix of viruses and species can occur.

"If they are being shipped or held in markets, in close proximity to other animals or humans," said Cunningham, *"then there is a chance those viruses are being shed in large numbers."* He said the other animals in a market like that are also more vulnerable to infection as they too are stressed.

"We are increasing transport of animals -- for medicine, for pets, for food -- at a scale that we have never done before," said Kate Jones, Chair of Ecology and Biodiversity at University College London.

"We are also destroying their habitats into landscapes that are more human-dominated. Animals are mixing in weird ways that have never happened before. So in a wet market, you are going to have a load of animals in cages on top of each other."

Kate Jones, Chair of Ecology and Biodiversity at University College London, said increasing transport of animals and habitat destruction meant animals were mixing in ways they never had before.

Cunningham and Jones both pointed to one factor that means rare instances of zoonotic spillover can turn into global problems in weeks. *"Spillovers from wild animals will have occurred historically, but the person who would have been infected would probably have died or recovered before coming into contact with a large number of other people in a town or in a city,"* said Cunningham.

"These days with motorized transport and planes you can be in a forest in central Africa one day, and in a city like central London the next," Jones agreed. *"Any spillover you might have had before is magnified by the fact there is so many of us, and we are so well connected."*

There are two simple lessons, they say, that humanity can learn, and must learn fast. First, bats are not to blame,

and might actually help provide the solution. "It's easy to point the finger at the host species," said Cunningham.

"But actually it's the way we interact with them that has led to the pandemic spread of the pathogen." He added that their immune systems are poorly understood and may provide important clues. "Understanding how bats cope with these pathogens can teach us how to deal with them, if they spillover to people."

The cause of "zoonotic spillover," or transfer from bats or other wild species, is almost always human behavior, says Professor Andrew Cunningham from the Zoological Society of London.

Ultimately diseases like coronavirus could be here to stay, as humanity grows and spreads into places where

it's previously had no business. Cunningham and Jones agree this will make changing human behavior an easier fix than developing a vastly expensive vaccine for each new virus.

The coronavirus is perhaps humanity's first clear, indisputable sign that environmental damage can kill humans fast too. And it can also happen again, for the same reasons.

"There are tens of thousands [of viruses] waiting to be discovered," Cunningham said. "What we really need to do is understand where the critical control points are for zoonotic spillover from wildlife are, and to stop it happening at those places. That will be the most cost-effective way to protect humans." Jones said viruses "are on the rise more because there are so many of us and we are so connected. The chance of more

[spillovers into humans] happening is higher because we are degrading these landscapes. Destroying habitats is the cause, so restoring habitats is a solution."

The ultimate lesson is that damage to the planet can also damage people more quickly and severely than the generational, gradual shifts of climate change.

"It's not OK to transform a forest into agriculture without understanding the impact that has on climate, carbon storage, disease emergence and flood risk," said Jones. "You can't do those things in isolation without thinking about what that does to humans."

WELCOMING LOCKDOWN

A juvenile Olive White-eye ringed on March 20th on Ile aux Aigrettes

March 20, 2020. Mauritius woke up to the news of a complete lockdown as a measure to contain the spread of the COVID-19 virus.

Still a team of conservation biologists were at work on Ile aux Aigrettes, confined, but also continuing the routine work. After all the birds, bats, juvenile Telfair skinks and tortoises need supplementary feeding every day.

During that morning's work routine, an unringed Olive White-eye was caught, and it's not that easy to catch such a small fragile and rare bird. Adult it would measure only around 10cm from head to tail.

Stella and her colleagues were really excited about welcoming this rare juvenile passerine. Everyone agreed to call it Lockdown, the name came up naturally given the special context and date. Even confined, conservation work

continues, successes happen every day and we are happy to share and celebrate with you all.

We also wish to recognise the work of project teams presently on duty during this lockdown period in our field stations around Mauritius and those on Ile aux Aigrettes. Daniella Aza, Jennifer Appoo, Markus Roesch, Sooraj Dwarika and Stella Babooram.



SAVING THE BIRDS OF MAURITIUS

How conservationists brought 3 species back from the brink?



Echo parakeet, Mauritius kestrel and pink pigeon.
© O. Langrand

There's perhaps no species more emblematic of extinction than the dodo. The flightless bird disappeared from the island of Mauritius—a speck of land in the middle of the Indian Ocean, some 500 miles from Madagascar—in the late 1600s, following Dutch colonization.

About 300 years later, three other endemic birds found on Mauritius were facing a similar fate. The population of the Mauritius kestrel (*Falco punctatus*) fell to four individuals by 1974. The following decade, the number of remaining echo parakeets (*Psittacula eques*) could be counted on two hands. The pink pigeon (*Nesoenas mayeri*) soon followed suit, with nine remaining by 1990.



Field staff moving a young hand-reared kestrel from its carry box to a release box. © Jacques de Spéville - volunteer photographer - Mauritian Wildlife Foundation

The specific reasons behind these numbers varied by species but were generally the result of degraded native forests—and a consequential lack of food—as well as non-native predators like cats and mongooses.

Fast forward to today, and the outlook of the three species is far more encouraging. Each population can now be counted in the hundreds instead of the single digits. What's more, the echo parakeet and pink pigeon were both recently “down listed” on the IUCN Red List of Threatened Species from Endangered to Vulnerable—an important indicator of success for conservationists and the government of Mauritius.

This work, however, is far from over. Those first years, conservationists were in crisis mode.

“When you have very few individuals left, every single bird counts, and you have to save every single one of them,” said Vikash Tatayah, Mauritian Wildlife Foundation's conservation director. *“It's important not to study the species for too long and waste time.”*

Scientists coaxed those few remaining birds into producing eggs and

prepared chicks for release, while simultaneously dialing in on threats, observing birds in the forest, and figuring out what needed to happen for the birds to breed in the wild.

“When we take on a project, we are fully aware that we are ‘stuck’ with the project for good or for bad, for many decades,” Tatayah said. *“It can be daunting to a funder.”*

In 2016, the Mauritian Wildlife began new actions to secure populations and conducted releases of all three species: Mauritius kestrels were introduced at Bel Ombre and echo parakeets and pink pigeons to Ferney Valley and Ebony Forest.

Bolstering the number of birds will do little good long-term, however, if there's not support by the community at large. Conservationists are tackling that challenge in a number of ways.

Established in 1984 by a group of international scientists—including the now legendary Carl Jones who is largely credited with spearheading Mauritius' conservation efforts—Mauritian Wildlife has increasingly employed local people. Though they often go on to other jobs—as teachers, bankers,



accountants—Tatayah said that these former employees and volunteers continue to support the organization’s mission. *“They keep Mauritian Wildlife in their hearts,”* he said. *“We have allies in governments, other NGOs, the private sector and the community. It is far easier dealing with an ex-colleague, someone who understands conservation and the organisation.”*

Local businesses are becoming increasingly more involved, too. *“The period when it was just simply giving a cheque is over,”* Tatayah said.

“Corporations will provide funding, but they want to know how it’s being used, and they want their staff to be engaged.” Despite these accomplishments, Tatayah said success in protecting the birds is not guaranteed. The lack of genetic diversity for each species—which makes them especially vulnerable to disease—is one hurdle that can’t be escaped, only managed.

Mauritius’ rapid development, meanwhile, keeps conservationists “on their toes,” as Tatayah put it. Non-native species finding their way onto

the island is also a constant concern as is, increasingly, climate change. *“I’m not going to pretend the future is not going to be challenging,”* Tatayah said. *“But we’ve come a long, long way.”*

Adapted from the Critical Ecosystem Partnership Fund (CEPF) “Saving the Birds of Mauritius” article by Marsea Nelson, Feb 2020.

To read the complete story, please click on the following link:

<https://www.cepf.net/stories/saving-birds-mauritius>

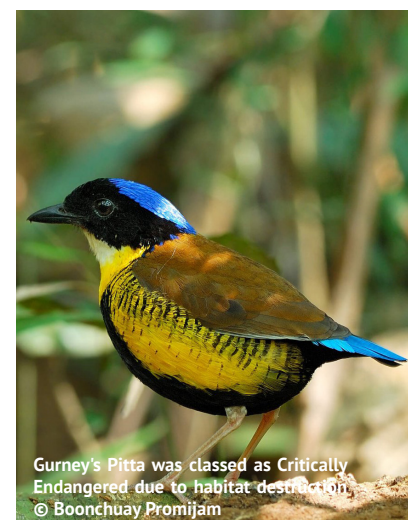
THE CURRENT HEALTH OF BIRD POPULATIONS

By Jessica Law

In the 2019 update to the IUCN Red List of Threatened Species, the Guam Rail *Hypotaenidia owstoni* became only the second bird in history to come back from extinction in the wild. Similarly, on Mauritius, the Echo Parakeet *Psittacula eques* was pronounced no longer Endangered. These encouraging successes were countered by the plight of Gurney’s Pitta *Hydrornis gurneyi* and the Imperial Amazon *Amazona imperialis*, both of which were moved to the Critically Endangered category – the Imperial Amazon’s crisis compounded by 2017’s infamous Hurricane Maria.



The Mauritius Echo Parakeet reclassified vulnerable © The Mauritian Wildlife Foundation / Jacques de Sèveville



Gurney's Pitta was classed as Critically Endangered due to habitat destruction © Boonchuay Promijam

THE MAURITIUS ECHO PARAKEET NO LONGER ENDANGERED

The 3 step plan that led to success



In this year's Red List update, the Echo Parakeet moved from Endangered to Vulnerable – an impressive recovery for a species that once numbered just a dozen birds. But successes like this aren't built in a day, or even a decade.

In the 1970s, there were around a dozen Echo Parakeets *Psittacula eques* remaining. Like its famous Mauritian cousin, the Dodo, it was heading for extinction. Fast forward 40 years and the species has made a remarkable comeback, with nearly 800 birds now in the wild. This is the second species in Mauritius to recover so significantly, and shows that concerted and prolonged conservation work pays off. But how do you bring a species back from the edge? For the last 40 years, the Mauritian Wildlife Foundation and the Mauritian government have been involved in a collaborative project to conserve this species. Key staff from Mauritian Wildlife explained their successful three-step plan which brought up this success.

Step one: plan for the long term

At Mauritian Wildlife, the team take a long view when it comes to conservation. “Instead of saying ‘what are we going to do for the next three years?’ we say ‘what are we going to do for the next 100 years?’”, says Carl Jones, founding member and Scientific Director of Mauritian Wildlife. “We work out what data and management techniques will enable us to sustain that population for a century.” This seems to be working, at least for the Echo Parakeet. The species has been ‘downlisted’ on the Red List twice this century, from Critically Endangered to Endangered in 2007, and then to Vulnerable in 2019.

Step two: a multi-faceted approach

To begin with, the focus was on protecting habitats, but the Mauritian Wildlife team soon realised that a more radical approach was required when they noticed that the birds’ nesting

success was extremely low. The team dug into what might be contributing to the decline of the species.

“What factors are controlling your population? Why is productivity and survival depressed? How can you actually correct these factors? Answering these questions gives you a profound insight into the species and its ecology”, says Jones.

Degraded habitats, insufficient food and high nesting failure rates because of starvation, parasites and predation from invasive species were the most significant issues for the parakeet. So the team addressed these threats practically, providing artificial nesting sites, supplementary food, and captive breeding.

The captive breeding programme took years to establish and was far from straightforward. From finding the correct diet and encouraging the birds to breed, to stopping the spread of

disease and dealing with dirty drinking water, there were many challenges along the way. Jones describes it as a constant learning process: *“Every time something didn’t work out, we evaluated the strengths and weaknesses of the approach that was taken.”* Through this process, the team adapted their approach to fit the needs and ecology of the species.

Nest boxes of all shapes and sizes were used to supplement natural nesting sites. However, in the beginning even the most sophisticated designs failed to attract the wild Echo Parakeets. Then something interesting happened: when the captive birds were released into the wild, they chose to use the familiar nest boxes. And the observant wild birds soon followed suit.

“The wild birds learned to use the nest boxes from the released captive birds”, explains Sion Henshaw, Fauna Manager for the Mauritian Wildlife. The same was true for supplementary food – the wild Echo Parakeets only started feeding on it once they saw the captive birds doing so.

More recently, Mauritian Wildlife has begun to expand the range of the Echo Parakeets. They’ve established a breeding population in the Bambou Mountain Range and have reintroduced the species to Chamarel, which borders onto the Black River Gorges National Park. In talking to the experts at Mauritian Wildlife, it becomes clear that none of these actions taken would have worked in isolation. But the captive birds acted as a linchpin, boosting population numbers and encouraging the wild birds to make the most of the conservationists’ support.

Step three: moving from one species to a whole ecosystem

The work of the Mauritian Wildlife and their partners to protect threatened species has also helped drive wider habitat restoration on Mauritius. As a direct result of the work to protect the Pink Pigeon, Echo Parakeet and



Mauritius Kestrel, the government has set up a national park.

But while this support has led to two downlistings in 12 years, the Echo Parakeet remains globally threatened. Vikash Tatayah, Conservation Director of the Mauritian Wildlife, is quick to stress that forest degradation is one of the biggest issues facing Echo Parakeets and other endemic fauna: *“Unfortunately, the forest quality is still declining on Mauritius, and for the foreseeable future we’ll have to give Echo Parakeets nest boxes, because efforts to try to restore forests won’t start reaping rewards for a long time.”*

For now, the Mauritian Wildlife Foundation is working to reduce the amount of hands-on management needed to keep the population growing, and the Mauritian Government is committed to ensuring that the Echo Parakeet is here to stay. The 2019 IUCN Red List Update has just declared another parrot species – the Spix Macaw *Cyanopsitta spixii* – Extinct in the Wild, and 225 bird species are classed as Critically Endangered. But the Echo Parakeet proves that we can turn the tide on extinction.

A conservation milestone our partners are proud of

Wildlife Vets International (WVI) were delighted to report that the Echo parakeet officially had its status downlisted from Endangered to

Vulnerable by the IUCN.

Andrew Greenwood, WVI’s avian expert, has worked very closely with the Mauritian Wildlife Foundation over recent decades. Dr. Vikash Tatayah, Conservation Director of the Mauritian Wildlife Foundation, confirmed: *“Had Andrew not sorted out our captive breeding standards and management in the wild, guided us through PBFD and provided us with his wisdom, we would not have got here!”*

Andrew was instrumental in turning things around in the 1990s, when he helped resolve many issues with the captive breeding programme, including poor water quality, lack of privacy for breeding birds and problem feather plucking, and numbers have climbed steadily ever since. He also helped set up and advise student research projects that brought high quality science to guide practical management.

Andrew continues to visit Mauritius periodically in order to help first hand, as well as being available to advise remotely.

BirdLife International also reported the Echo Parakeet *Psittacula eques* downlisting and continued recovery thanks to conservation action, including a highly successful captive breeding and translocation project driven by our organisation and the National Parks and Conservation Service.

This success follows hot on the heels of the Pink Pigeon *Nesoenas mayeri*, another Mauritian bird, which last year was recategorised from Endangered to Vulnerable thanks to a captive breeding programme, having bounced back from a population which numbered, at one point, just nine birds.



Field worker Helene Bertille ringing 15 day-old chicks in a natural tree cavity © Sion Henshaw

LA CONFÉRENCE KLIMA



La Mauritian Wildlife Foundation a eu le plaisir de participer à la table ronde autour de la thématique "Préservation des ressources naturelles et activités économiques : quelles synergies pour demain?" lors de la récente conférence Klima par le Group MCB. Parmi les intervenants, Dr Vikash Tatayah (Conservation Director de la Mauritian Wildlife Foundation), Dr Frauke Fleischer-Dogley (CEO de la Seychelles Island Foundation), M. Jean-Michel Pitot (Association des Hoteliers et Restaurateurs de l'Île Maurice) et Mme Gina Bonne (Commission de l'Océan Indien). La conférence Klima, animée par Elisabeth Laville de la firme Utopies, s'est tenue le mercredi 5 février 2020 au Caudans Arts Centre et a permis de fédérer différents acteurs autour de la question climatique et d'aborder, ensemble, les pistes pour transformer notre île et nos modèles économiques.

Pour en savoir plus, nous vous invitons à parcourir l'étude Klima Neutral 2050 dans son intégralité sur klima.mu. Les présentations de François Gemenne, scientifique de renom, et d'Anirban Ghosh, directeur du développement durable de Mahindra Group, sont aussi disponibles sur le site.

Vous pouvez aussi télécharger le rapport Klima Neutral 2050 ici <https://klima.mu/#rapport>

IUCN SSC MASCARENE ISLANDS PLANT SPECIALIST GROUP REPORT

The International Union for the Conservation of Nature (IUCN) Species Survival Commission (SSC) Mascarene Islands Plant Specialist Group have had a momentous year in 2019. The Mascarene Islands Plant Specialist Group is a voluntary network of non-governmental, governmental and international plant scientists with expertise in Mascarene flora conservation.

It cuts across institutional and geographical barriers for the good of conservation of threatened flora of our region.



IUCN SSC Mascarene Islands Plant Specialist Group

2018 Report



Vikash Tatayah



Stéphane Baret

The group is hosted by the Mauritian Wildlife Foundation for Mauritius and Rodrigues (with Dr Vikash Tatayah, as co-chair) and the Reunion National Park for Réunion Island (with Dr Stéphane Baret, as co-chair).

Below is the link to the IUCN SSC Mascarene Islands Plant Specialist Group Report 2018:

<https://bit.ly/2Qukq4G>

MASCARENE SWIFTLET DECLARED AS 'NEAR-THREATENED'

In the latest BirdLife/IUCN red-list assessment, published this December 2019, we learnt of the official downlisting of the Echo Parakeet (*Psittacula eques*) from Endangered to Vulnerable. This is a milestone in the restoration of the species (see: <https://bit.ly/3aFvu7F>).

Regrettably, this great news coincided with a concerning one for another bird, the Mascarene Swiftlet (*Aerodramus francicus*), which is also known as the 'ti zirondel' or 'hirondelle des caves' amongst others (see <https://bit.ly/3aDXyZ3> for a description of the species and its habits. The Mascarene Swiftlet entered the red-list of species for the first time (see : <https://www.iucnredlist.org/species/22686511/154346114>) as 'Near-Threatened'.

Although this is the lowest threat level, the species may be raised in future to a higher threat level (one of the categories of 'Threatened') if

the decline in the species worsens, or the bird's habitat (i.e. caves) further degrades.

The Mascarene Swiftlet is endemic to Mauritius and Reunion and faces similar threats on both islands. The recovery of the species is challenging since actions will need to be taken on both islands.

As for Mauritius, this means conducting an island wide census of the Mascarene Swiftlet to confirm the population size, increasing protection of caves, enforcement against destruction of nests to make soup and stricter control on use of pesticides in agriculture.

Photo courtesy of Jacques de Spéville



RODRIGUES

Deployment of signage on Ile Coco Nature Reserve

Bienvenue à Welcome to Ile Cocos

L'Ile Cocos est une réserve naturelle qui possède un environnement propice à la reproduction des oiseaux marins. Merci d'observer et respecter les règles suivantes:

Il est strictement défendu :

- De cueillir les fruits,
- De toucher ou d'effrayer les oiseaux,
- De ramasser des œufs,
- D'endommager les plantes,
- D'allumer un feu,
- De rester plus de 4 heures sur l'île,
- De laisser des ordures (détritus) sur l'île.

Un manquement à l'une des règles pourrait résulter à une amende de Rs. 5,000 ou une peine d'emprisonnement allant jusqu'à 24 mois.

Ile Cocos is a nature reserve with a habitat suitable for breeding seabirds. Please ensure you respect this islet and abide by the following rules:

It is strictly prohibited to:

- Pick fruits,
- Touch or disturb the birds,
- Collect eggs,
- Damage or interfere with plants,
- Light a fire,
- Stay more than 4 hours on the island,
- Leave rubbish on the island.

Any breach of these rules may lead to a fine of up to Rs 5,000 or 24 months imprisonment.

Towards the end of 2019, Mauritian Wildlife Rodrigues deployed 5 new information signboards at the Visitor Centre on Ile Coco Nature Reserve (ICNR). This locally produced information signage includes a welcome panel with important dos and don'ts for visitors. There are also four panels explaining and illustrating the four nesting seabird species, a variety of non-nesting birds seen on the islet, and the habitat restoration work carried out by the Mauritian Wildlife on this islet and the Ile aux Sables Nature Reserve, located a few hundred metres north of ICNR. The signage was welcomed by the visiting tourists present as well as the working staff (Forestry Service, boatmen, tour operators and tour guides) also present on the island at the time of deployment.

Oiseaux de mer non-nicheurs Non-nesting seabirds

Phaethon lepturus
Puffin-croisé à long bec / White-bellied Tropicbird / Puffin-bird

Phaethon rubricauda
Puffin-croisé à queue rouge / Red-bellied Tropicbird / Puffin-bird

Sterna bergii
Sterne de Berg / Brown Booby / Brown Booby

Anous stolidus
Tourterelle à collier / Pacific Noddy / Noddy

Diomedea exulans
Oiseau à bec gris / Great Frigatebird / Frigatebird

Tringa melanoleuca
Oiseau à bec gris / Green Sandpiper / Green Sandpiper

Numenius phaeopus
Oiseau à bec gris / Common Curlew / Curlew

Cathartes aura
Oiseau à bec gris / Common Kestrel / Kestrel

Cathartes aura
Oiseau à bec gris / Common Kestrel / Kestrel

Butorides arctica
Oiseau à bec gris / Great Frigatebird / Frigatebird

**Le suivi des oiseaux de mer sur l'Ile Cocos et l'Ile aux Sables
Seabird Monitoring on Ile Cocos and Ile aux Sables**

Des suivis sont régulièrement effectués sur les quatre oiseaux de mer indigènes de l'Ile Cocos et l'Ile aux Sables: Noddi brun, Noddi marianne, Goélette blanche et Sterne fuligineuse. Les oiseaux migrateurs sont aussi recensés. Ces suivis permettent de connaître l'état des populations d'oiseaux et de leur reproduction dans le temps.

Surveys are regularly conducted on the four native breeding seabirds on Ile Cocos and Ile aux Sables (Common Noddy, Lesser Noddy, Fairy Tern and Sooty Tern). The presence of migrating seabirds is also recorded. These surveys allow the population and breeding behaviour of the birds to be monitored on a long-term basis.

Oiseaux de mer nicheurs Nesting seabirds

Anous stolidus
Noddi brun/Noddi commun
Brown Noddy/Common Noddy

Le Noddi brun est de plus grande taille que le Noddi marianne. La couleur de son plumage est brun foncé (mais plus clair que le Noddi marianne) avec une tache grise bien marquée sur le dessus de la tête. Sa queue est longue et son bec légèrement incurvé. Cet oiseau fait son nid dans les arbres et au sol. La femelle pond un œuf principalement en décembre, mais elle est connue pour pondre tout le long de l'année. Cette espèce incube l'œuf pendant 28 à 37 jours, puis nourrit l'oisillon pour 40 à 55 jours.

The Common Noddy is larger than the Lesser Noddy. It has dark brown feathers and a grey patch on the head. It is paler in colour than the Lesser Noddy. Its tail is long and its beak is slightly curved. It nests in trees and on the ground. The female is known to lay eggs all year round, but is mainly on eggs in December. This species incubates for 28 to 37 days, and then feeds the hatchling for 40 to 55 days.

Anous tenuirostris
Noddi marianne/Noddi à bec gris
Lesser Noddy

Le Noddi marianne est de plus petite taille et a un plumage plus foncé que le Noddi brun. La couleur de son plumage est noire, puis tourne au gris vers la tête. Il a le bec droit et mince. Il fait son nid à partir de feuilles et d'algues qu'il cimente avec ses fientes. La femelle pond un œuf principalement en août, mais elle est connue pour pondre tout le long de l'année. Cette espèce incube son œuf pendant environ 35 jours, puis nourrit l'oisillon pour 55 à 70 jours.

The Lesser Noddy has dark feathers that become progressively grey from its neck to its head. It is smaller in size and darker in plumage than the Common Noddy, and has a thin straight bill. It makes its nest from leaves and algae cemented together with its faeces. It is mainly on eggs in August, but is known to lay eggs all year round. It incubates for approximately 35 days, and then feeds the hatchling for 55 to 70 days.

Oiseaux de mer nicheurs Nesting seabirds

Gygis alba
Goélette blanche
Fairy Tern

Oiseau à bec gris / Fairy Tern / Fairy Tern

An elegant bird with pure white feathers and a curved tail. It has a thick and pointed beak that arches slightly upwards and is blue at its base. The black circle that surrounds each eye makes it appear even larger. This bird is special for laying its eggs directly on a branch. It is known to lay eggs all year round, incubates for 30 to 41 days, and then feeds the hatchling for 80 to 100 days.

Onychoprion fuscatus
Sterne fuligineuse
Sooty Tern

The bird is dark on the upper side and white underneath. An identifying feature is the white spot above its bill. It has a long and forked tail and wings and nests on the ground in dense colonies. This species is mainly on eggs between May and July or October and December, incubates for 28 to 32 days, and feeds the hatchling for 65 days.

Sterna bergii
Sterne fuligineuse
Sooty Tern

The bird is dark on the upper side and white underneath. An identifying feature is the white spot above its bill. It has a long and forked tail and wings and nests on the ground in dense colonies. This species is mainly on eggs between May and July or October and December, incubates for 28 to 32 days, and feeds the hatchling for 65 days.

Réhabilitation de l'Ile Cocos Restoration of Ile Cocos

1. L'Ile Cocos avant la restauration
La communauté végétale de l'Ile Cocos est marquée par une faible densité d'arbres dont une majorité de plantes introduites.

2. Le débarrasage d'espèces envahissantes
Les espèces introduites et envahissantes telles que l'Acacia (Acacia leucophylla) et le Ricin (Ricinus communis) sont éliminées pour limiter leur propagation.

3. La propagation de plantes à la pépinière
Les plantes endémiques sont propagées à la pépinière de Solitude à partir de graines, de boutures et de plantules prélevées dans la nature.

4. La transplantation sur l'Ile Cocos
Les plantules endémiques sont transportées par bateau pour être plantées sur l'Ile Cocos.

5. Suivi de la survie des plantes
Le succès des plantations, ainsi que la survie par espèces, sont régulièrement suivis.

1. Ile Cocos before restoration
The plant community of Ile Cocos is sparsely vegetated and the majority of the plants are introduced species.

2. Weeding of invasive species
Exotic and invasive species, such as Acacia (Acacia leucophylla) and castor oil plant (Ricinus communis) are sprayed to halt their spread.

3. Plant propagation in the nursery
Endemic seedlings are propagated in the nursery in Solitude from seeds, cuttings and seedlings collected in the field.

4. Planting on Ile Cocos
The endemic seedlings are transported by boat and planted on Ile Cocos.

5. Monitoring plant survival
The overall planting success, as well as the survival of individual species, is monitored on a regular basis.

Rodrigues IUCN Red-listing Workshop

The Mauritian Wildlife Foundation with the financial support of the Franklinia Foundation, in collaboration with Botanical Gardens Conservation International (BGCI), organised a week-long technical work-session in November 2019, to carry out the International Union for the Conservation of Nature (IUCN) Red-listing of Rodrigues' endemic trees (under BGCI's Global Tree Campaign). The Red List of Threatened Species is one of the most well-known objective assessment systems for classifying the status of plants, animals, and other organisms threatened with extinction. It uses a set of criteria to evaluate the extinction risk of tens of thousands of species.

This work session, regrouped key plant specialists from the Mauritian Wildlife Foundation, the Rodrigues Regional Assembly's Forestry Service, Francois Leguat Reserve and one local private endemic plant nursery owner. This team is part of the Mascarene Islands Plant Specialist Group, a group of plant experts in Mauritius, Reunion and Rodrigues.

All Mauritian Wildlife staff in Rodrigues were present for the workshop's official launch at the Dominique Farla Information Centre, Grande Montagne in the presence of the Commissioner for Forestry, Agriculture and Environment, Mr Richard Payendee (ex-Mauritian Wildlife Rodrigues Manager) and Dr Vikash Tatayah, the Mauritian Wildlife Conservation Director and the local press. Also present amongst the guests was Mr Pierre Baissac, an ex-Mauritian Wildlife Manager now a Consultant and President of the Royal Society of Arts and Sciences, coincidentally on visit in Rodrigues.

During the 5-day workshop the participants contributed their knowledge of over 30 endemic trees and a number of shrubs, lianas and grasses. Data was gathered more specifically on the number and whereabouts of each individual mother plant, as well as the status and the

threats faced by each species. These datasets were compiled, thoroughly reviewed and will be uploaded on the IUCN website, where everyone can see their updated status.

The last time the Rodrigues flora was assessed goes back to 1989, by Dr Wendy Strahm in collaboration with local stakeholders. This red-listing (re)assessment will provide valuable information on the status of our plants, highlight threats, underpin conservation needs, support funding applications and therefore allow us to best save these unique plants from extinction.



International Volunteer Day 2019 in Rodrigues



International Volunteer Day (IVD) is a United Nations celebratory event held each year on the 5th of December to recognise the effort and commitment of volunteers to the community. On this day, organisations around the world run activities with their volunteers to thank them for their valuable contributions. IVD is an important event for the Mauritian Wildlife Foundation as we have a long-term and ongoing volunteer programme.

This year, the Mauritian Wildlife Foundation of Rodrigues organised and commemorated IVD with a ceremony in honour of all the volunteers that contributed to helping us monitor and save Rodrigues' endangered species from extinction. Through 2019, the Mauritian Wildlife Foundation of Rodrigues welcomed 108 volunteers, between the ages of 2 and 70, who helped with Mauritian Wildlife's conservation work.

The main activities volunteers participated in included helping with the propagation of native and endemic plants in Mauritian Wildlife's endemic nursery in Solitude, weeding invasive alien species and planting native and endemic species in the Grande

Montagne and Anse Quitor Nature Reserves, participating in field work collecting propagation material for the nursery and assisting in golden fruit bat surveys.

Mauritian Wildlife's event was celebrated in the main lecture theatre of the Antoinette Prudence Human Resource Centre in Malabar. 46 of the 108 volunteers turned up and all Mauritian Wildlife Rodrigues staff were present on the day too. The REEP educator served as the master of ceremony and speeches were made by the MWF Rodrigues Manager and Field Officer. Testimonials were also given by 3 volunteers.

The event was covered by the Rodrigues Branch of the Mauritius Broadcasting Corporation, and both Mauritian Wildlife staff and volunteers were also interviewed sharing their views of the event the success of the volunteering work done. This was later featured in the local news on both radio and television, making the contributions of all our volunteers visible to the wider population.

Each volunteer was presented with a taffeta bag bearing Mauritian Wildlife's new logo and a certificate

of participation to express Mauritian Wildlife's appreciation for their contributions and dedication to the cause of environmental conservation. Locally made refreshments were given to all those attending. At the end of the ceremony everyone grouped together for a team photo (see photo above).



Embellishment of Schools - A 2020 Rodrigues Project



In preparation for the 17th Anniversary of the Autonomy of Rodrigues, all Primary and Secondary Schools were invited by Rodrigues Regional Assembly and the Rodrigues Council of Social Service (RCSS) to participate in an embellishment project on the theme: *Nou Zoli Lekol/Kolez*, meaning Our Pretty School/College, itself falling under the umbrella RCSS *Nou Zoli Vilaz* project meaning Our Pretty Village.

The Heads of Schools were requested to develop and implement projects using recycled, eco-friendly and local materials. This was done in consultation with the Parents and Teachers Associations, non-teaching staff and other relevant resource persons and organisations. Mauritian Wildlife of Rodrigues was invited to form part of the Terre Rouge Government School Committee, for their project, and was responsible for providing endemic and native plants, advising how to maintain and upgrade their existing endemic garden. The aim of their project was to educate children about the importance and value of endemic trees to the island.

Mauritian Wildlife's Nature Reserve Officer, Ms Anieta Shan Yu and Environmental Educator, Ms Liliana Meunier met with the school Head Mistress and several teachers in February 2020 for a site visit and to begin work on their endemic garden. The school gardener was shown how to carry out maintenance weeding and prune endemic trees without causing them unnecessary stress.

Later in the year, an Officer of the RRA's Commission for Education and RCSS members will carry out site visits around the island to monitor the progress of these school embellishment projects. In October 2020, the best school will be awarded a prize.

ALIEN SPECIES FOUND!

Snake in Quatre Bornes and Iguana in Rodrigues

A snake was detected in Bassin, Quatre Bornes, on 18th February 2020. We believe that it has arrived from China with materials in a container.

From the photograph taken upon its discovery it was identified as a juvenile Golden Tree Snake, *Chrysopelea ornata*, probably no more than 60 cm in length, but the species can grow to about 1.5 m. The snake is native to southern China and Southeast Asia and is common close to human habitation, but has not been reported as being a problem to humans.

The snake is rear-fanged meaning that it has teeth near the back of its mouth that can inject venom when it holds onto its prey, which consists of small animals. However, it is reported that the venom of this snake is so mild that it is not considered a threat to humans and for this reason no antivenom exists for the species. If you see this snake, please call the National Parks and Conservation Service (on 4644053 and 4644477 during office hours or on 52569740 after office hours.) immediately, but do not approach the snake as it will be disturbed and move away making it harder to find and be captured.

Do not try to catch the snake as this is when a bite is most likely to occur. If bitten, it is unlikely that you will feel anything unusual, but if in doubt (you feel a reaction or detect swelling) apply pressure to the area of the bite (DO NOT suck on the bite as seen in the movies as this only spreads the venom more), stay calm and get someone to drive you to a hospital to have the bite checked. As with any bite from an animal it is important to disinfect the area of the bite. This snake is not to be fearful of. The increased frequency of arrival of different species of snakes into Mauritius through cargo containers calls for greater vigilance, and stricter quarantine.



On the 3rd of December 2019, the inhabitants of Baladirou, Rodrigues came across an iguana wandering around and called the Mauritian Wildlife Foundation for assistance.

Reshad Jhangeer-Khan, Manager of

our Rodrigues branch and Alfred Begue, Rodrigues Staff responded, accompanied by Officers from Forestry Services and the Interim Commissioner, Mr Baptiste. The iguana was caught and handed over to the veterinary surgeon of the Rodrigues Assembly.

FORGED BY THE OCEAN PROJECT

Forbes Mavros stunning project to support the Mauritian Wildlife during the confinement



With the Mauritian Wildlife collection of silver pendants and bracelets, his company has been raising funds to support the Kestrel Conservation project for a number of years now. During the lockdown, Forbes initiated another collection to increase his support to our organisation.

'I'm always happy to help', Forbes said. 'I was about 6 years old when I made my first piece of jewelry. I remember being a naughty kid. I broke my Mum's favorite teapot, but then strung the shards together making a necklace as a sorry present for her. She still has this necklace, and I have been making jewelry ever since', he added.

Forbes' wife, Kate is also a jeweler, she has been making beautiful jewels since she was a child, Jewelry making is in their blood. The Patrick Mavros craft has always been inspired by the beautiful natural world we live in. During this time of confinement and curfew, while most businesses are closed, Forbes and Kate will continue to honor their skills. A new collection of ladies and men's bangles "Forged By The Ocean" have been put up for sale, proceeds going to fund our organisation.

Watch the video where Forbes forges the first bangle. For pre-orders follow the instagram link to Patrick Mavros Atelier @forbes_mavros:

https://www.instagram.com/forbes_mavros/

<https://www.facebook.com/PMABP/videos/556686431617220/>

WORLD WETLANDS DAY 2020



Wetlands are essential to our future and February 2 each year is World Wetlands Day. This day marks the date of the adoption of the Convention on Wetlands on 2 February 1971, in the Iranian city of Ramsar on the shores of the Caspian Sea.

Wetlands not only act as safeguards against natural disasters, they are an ecosystem rich in biodiversity and are important for fresh water.

WORLD WILDLIFE DAY 2020



On 20 December 2013, at its 68th session, the United Nations General Assembly (UNGA) proclaimed 3 March – the day of signature of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1973 – as UN World Wildlife Day to celebrate and raise awareness of the world's wild animals and plants. World Wildlife

Day was celebrated in 2020 under the theme "Sustaining all life on Earth", encompassing all wild animal and plant species as key components of the world's biodiversity. This year, staff of the Mauritian Wildlife Foundation were present at So'Flo, Ascencia's mall at Floréal, with the help of some volunteers, all present to not only sensitize the public on the main goal

to protect our biodiversity, but also sell products to raise funds.

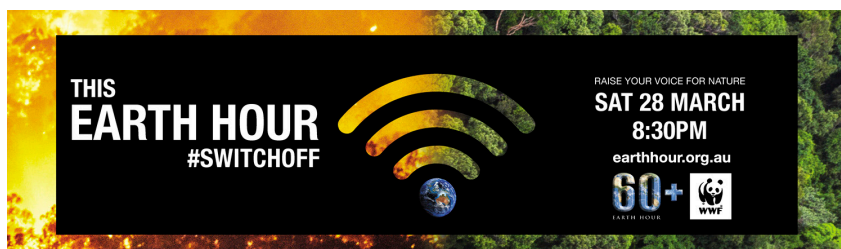
Together with So'Flo, the Mauritian Wildlife also hosted short films screenings and kids activities to help raise awareness on endangered Mauritian species and everyone's role in saving what is left of our unique wildlife.

EARTH HOUR 2020

People from a record-breaking 190 countries and territories supported Earth Hour 2020 in the midst of the COVID-19 outbreak.

Global leaders, celebrities, individuals and businesses from 190 countries and territories came together on Saturday, 28th March, to lend their support for the planet. A people-led movement, Earth Hour 2020 beautifully exemplified the resilience of the human spirit amid a crisis. At a time when people across the globe are battling a health crisis of an unforeseen scale, and many countries are under complete lockdown, supporters rose to the challenge of marking Earth Hour with online events. Earth Hour 2020 generated over 3 billion social media impressions globally and its related hashtags trended across 37 countries on Twitter and Google search, making it one of the most successful online events in its history.

Many renowned public figures, environmental activists and celebrities from across the globe supported Earth Hour 2020 to draw attention to the nature and climate crises. UN Secretary-General Antonio Guterres, Pope Francis, environmental activist Greta Thunberg, Canadian Prime Minister Justin Trudeau, Indian film star Amitabh Bachchan, UN



Environment Goodwill ambassador Dia Mirza, Kenyan singing sensation Nikita Kering, Colombian model Claudia Bahamon and British Singer Songwriter Cat Stevens were among the many public personalities who participated in Earth Hour this year.

Marco Lambertini, Director General, WWF International, said *"The success of this year's Earth Hour is a testimony to the incredible human spirit and the power of collective action. At a time when the world is facing an unprecedented challenge in the face of the COVID-19 outbreak, the need to unite and make our voices heard for a more harmonious relationship with the planet has never been greater. People from across the globe responded to this call for action by coming out in support for protecting the planet, and inspiring others to commit to halting nature loss with innovative online campaigns and events. I truly applaud their unflinching commitment for a sustainable future. As Earth Hour 2020 comes to a close, I urge you all to continue to work in solidarity with each*

other to safeguard the future of our planet. Let's look after one another and our one shared home."

As a symbolic gesture of support to Earth Hour 2020, over 100 iconic buildings including the Sydney Opera House, the Eiffel Tower, Sheikh Zayed Grand Mosque, Tokyo Skytree, Brandenburg Gate, the Colosseum in Rome, Taipei 101, Shanghai Oriental Pearl Tower, Beijing National Stadium, the Ali Qapu Palace, the Hellenic Parliament in Greece, YTN Seoul Tower, Panama Canal, Moscow Kremlin, Tower Bridge in London and the Victoria Harbour in Hong Kong, switched off their lights, to invite urgent action against nature loss and climate change. Additionally, millions of people around the world switched off the lights of their homes in solidarity with the movement.

In Mauritius, the Sir Seewoosagar International Airport participated in the movement.

10,000 LIKES MILESTONE REACHED ON OUR FACEBOOK PAGE



Thank you everyone who has liked our page and shared our posts so far. We deeply appreciate the support and interest you have shown for our conservation and preservation work!

WILDLIFE PHOTOGRAPHY

Discover a few of the beautiful photos shared by our nature-loving Facebook friends.



Ornate Day Gecko by Stephanie Manuel Photography



Ile Aux Aigrettes aerial view by Dominique Rene



Mauritius Fody by Steve McCarthy



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photography

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Aldabra Giant Tortoise by Stephanie Manuel Photography



Pink Pigeon by Rudolf Herczog